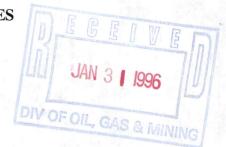
# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

355 West North Temple 3 Triad center, Suite 350 Salt Lake City, Utah 84180-1203 Telephone: (801) 538-5340 Fax: (801) 359-3940



#### ANNUAL REPORT OF MINING OPERATIONS

The informational requirements of this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, as amended, and the General Rules as promulgated under the Utah Minerals Regulatory Program. An operator conducting mining operations under a Notice of Intention must file an annual operations and progress report (FORM MR-AR) with the Division.

#### I. General Information

- 1. Report Time Period: From (mo./yr.) 1/95 To (mo./yr.) 12/95
- 2. DOGM File Number (Mine No.): M/045/004
- 3. Mine Name: Pine Canyon Reclamation Project
- 4. Mineral(s) Mined (or permitted to mine): Copper and associated metals.
- 5. Type of mine: X Surface Mine or \_ Underground Mine
- 6. Legal Description, (Location of Lands Affected):

Portions of the

Section 17, S 1/2, SW 1/4;

Section 20, N1/2, NW 1/4, W 1/2, NE 1/4, SE 1/4, NE 1/4, E 1/2, SE 1/4;

Section 21, SW 1/4, SW 1/4;

Section 28, N 1/2, SW 1/4, NW 1/4;

Section 29, NE 1/4, NE 1/4;

Township 3 South, Range 3 West, Salt Lake Baseline and Meridian, Tooele County, Utah.

- 7. Name of Operator or Company: Kennecott Utah Copper Corporation
- 8. Permanent Street Address: P. O. Box 6001 City, State, Zip: Magna, UT 84044 Phone: (801) 252-3179
- 9. Company Representative (or designated operator):

Name: Elaine Dorward-King, Ph.D. Title: Director, Environmental Affairs Business Address: P. O. Box 6001 City, State, Zip: Magna, UT 84044

Phone: (801) 252-3179

X Please check if any of the above information has changed since previous year.

#### II. Mining and Reclamation

- 1. Was the mine active during the past year? Yes \_\_ No X
- 2. If active, how much ore or mineral was mined? The mine was not active in 1995.
- 3. How much additional acreage was disturbed during the past year? 0 acres
- 4. Briefly describe any new or additional surface disturbances that occurred during the past year. This description should include the type of work performed, and volume of material moved.

No new or additional acreage was affected during this reporting period.

- 5. How much acreage was reclaimed during the past year? 0 acres
- 6. Briefly describe the reclamation work performed during the past year. This description should include methods employed, and an evaluation of the results.

No new reclamation work occurred during this reporting period. The past year was spent monitoring the reclamation work that was performed over the past few years. Reclaimed areas that were not effected by the flash flood in 1993 continue to show significant amounts of established vegetation. The areas repaired from the 1993 flash flood are exhibiting successful establishment of initial revegetation.

7. What is the total disturbed acreage at years end?

The only disturbed acreage left in Pine Canyon are those sites identified in the 1988 reclamation plan that were left for long term use in the canyon. These sites include the Pine Canyon tunnel portal and concrete flume, production shaft headframe, access road, the warehouse/shop, culinary water system, water supply wells, power line to the wells, fresh water tank and the waste rock pile adjacent to the headframe.

8. Briefly summarize any mining and/or reclamation plans for the upcoming year.

No new reclamation activities are planned for 1996, however, the revegetation will be monitored for success. KUC is currently evaluating potential uses of the Pine Canyon Tunnel portal as part of KUC's overall water management program.

1996 marks the third year since the flash flood disturbed approximately 17.3 acres of reclaimed land in the canyon. The revegetation efforts in this area have proven successful and may be ready for inspection by the Division this spring depending on the weather.

**NOTE:** 

Section III., "Additional Information" applies only to large mining operations.

#### III. Additional Information

1. An updated surface facilities map should be attached if there have been significant changes since the previous map was submitted.

No significant changes occurred since last year. Therefore, no map will be submitted with this report.

2. Any monitoring results or other reports that are required under the terms of the approved notice of intention should also be submitted.

The following attachments provide the required water monitoring results as described in the approved notice of intent:

- 1995 Pine Canyon Water Sample Results
- 1995 Pine Canyon Water Level Information

#### IV. Signature Requirement

I hereby certify that the foregoing is true and correct.

Name (Typed or Print): Elaine Dorward-King, Ph.D.

Title of Operator: Director, Environmental Affairs

Signature of Operator: 3 La J. Doward-Kr

Date: January 29, 1996

#### CARR FORK EXHAUST SHAFT WATER LEVELS MONTHLY SUMMARY

		WATER	
DATE	TIME	ELEV (ft)	
28-Jan-95	16:00	6152.8	
28-Feb-95	16:00	6151.8	
28-Mar-95	16:00	6155.2	
28-Apr-95	16:00	6163.0	
28-May-95	16:00	6213.1	
29-Jun-95	16:00	6242.5	
28-Jul-95	16:00	6238.2	
28-Aug-95	16:00	6230.4	
28-Sep-95	16:00	6222.7	
28-Oct-95	16:00	6216.4	
21-Nov-95	14:52	6210.8	(1)
20-Dec-95	08:55	6203.7	(1)

- NOTE: (1) manual sounding; all other readings recorded with SINCO VWP Data Collector.
- 10-Aug-92 Angle diamond drillhole D283 collared on the 6040.
- 22-Aug-92 D283 intersects Carr Fork Exhaust Shaft at 5600'elev.
- 17-May-93 Valve at D283 collar closed due to broken header pipe. 16-Aug-93 Header pipe repaired and gate valve at D283 re-opened.
- 28-Dec-94 NOS pumps turned off for recovery test.
- 22-Feb-95 NOS pumps returned to intermittent service.

sde 09-Jan-96

	Maximum contaminant level (EPA)	27-0ct-93	27-0ct-93	19-Apr-94	09-Jun-94	12-0ct-94	25-Oct-94	02-May-95	05-Jul-95	06-Sep-95	09-Nov-95
Well Designation		CFFA	CFEX	D283	CFEX	D283	CFSrvc	CFSrvc	CFSrvc	CFSrvc	CFSrvc
Sample type		Bailed	Bailed	Spigot	WQ log	Spigot	Pumped	Pumped	Pumped	Pumped	Pumped
рH		6.79	6.90	6.73	6.80	6.78	7.36	7.14	7.30	7.01	7.25
Conductivity		3320	3330	2630	3600	3290	1266	1145	1250	1200	1194
TDS		3390	3490	3390	NA	3300	922	950	930	933	920
Chloride		19	37	17	NA	17	15	17	19	17	17
Sulfate		1610	1610	2040	NA	2090	390	434	464	437	463
Bicarbonate		380	410	400	NA	410	260	306	289	240	239
Carbonate		< MDL	< MDL	< MDL	NA	< MDL					
Calcium		719	708	555	NA	625	186	139	190	187	190
Magnesium		181	178	216	NA	240	79	67.2	64	73	61
Sodium		18.4	19	16	NA	16	20	15.9	13	15	12
Potassium		8.3	8.8	9.6	NA	9.1	4.2	2.9	3.4	3.6	3.6
Copper	1.3	0.005	0.003	0.016	NA	< MDL	0.004	< MDL	< MDL	< MDL	< MDL
Iron		50	54	5.69	NA	56	8.2	6.2	6.3	6	9.8
Manganese		6.46	6.65	10.5	NA	2.9	0.824	0.82	0.99	0.9	< MDL
Zinc		1.11	0.94	1	NA	0.4	0.034	0.08	0.02	0.03	0.05
Aluminum		0.11	0.33	0.46	NA	0.062	0.073	NA	NA	NA	< MDL
Nickel	0.1	0.04	0.06	0.1	NA	0.11	0.014	< MDL	< MDL	< MDL	0.05
Arsenic	0.05	0.11	0.128	0.19	NA	0.111	0.011	0.007	0.011	0.006	0.012
Lead	0	0.004	0.002	< MDL	NA	0.008	< MDL				
Mercury	0.002	NA	NA	NA	NA	NA	NA	0.0002	NA	NA	0.0002
Selenium	0.05	< MDL	< MDL	0.023	NA	0.007	< MDL				
Molybdenum		0.02	0.03	0.035	NA	0.03	0.005	0.006	0.008	< MDL	< MDL
Cadmium	0.005	NA	NA	NA	NA	0.005	< MDL				
Chromium	0.1	NA	NA	NA	NA	NA	NA	< MDL	< MDL	< MDL	< MDL
Ion balance, %				7.13			10.44	6.59	5.33	13.59	4.64

NOTES: Reported analytes are "total metals" in mg/L.

MCLs are EPA regulated limits for public drinking water

WQ log of 9-Jun-94 conducted by COLOG, Inc provided continuous downhole log of conductivity, pH, oxidation/reduction potential, & temperature.

CFFA - Carr Fork Fresh Air shaft

CFEX - Carr Fork EXhaust shaft

CFSrvc - Carr Fork Service shaft (BMS1356)

D283 - diamond drillhole D283



sde 04-Dec-95



## **Kennecott Environmental Laboratory**

Certificate of Analysis: July 11, 1995

Sample Collection Date:

05/02/95

Page 1 of 1

Well Designation: ANACO	NDA SERVIC	KEL Sample ID #:	Total Metals AD03890	Dissolved Metals AD03891
<u>Analyte</u>	<u>Units</u>	MDL	Result	Result
* рН			7.14	
* Temperature	Degrees C		13	
* Conductivity	Micro mho/cm	1	1145	
Alkalinity	mg/L	10	251	
Calcium	mg/L	0.1	139	
Magnesium	mg/L	0.1	67.2	E G E I V E I
Potassium	mg/L	0.1	2.9	
Sodium	mg/L	1	15.9	JAN 3 1 1996
Chloride	mg/L	5	17	0/11/ 0   1000
Sulfate	mg/L	50	434	
Cluoride	mg/L	0.2	0.5 DIV 0	OF OIL, GAS & MININ
litrate	mg/L	0.2	Below MDL	
Nitrite	mg/L	0.05	Below MDL	
Total Dissolved Solids	mg/L	10	950	
Total Suspended Solids	mg/L	1	13	
Mercury	mg/L	0.0002	0.0002	
Arsenic	mg/L	0.005	0.007	Below MDL
Barium	mg/L	0.01	0.03	0.03
Cadmium	mg/L	0.002	Below MDL	Below MDL
Chromium	mg/L	0.01	Below MDL	Below MDL
Copper	mg/L	0.02	Below MDL	Below MDL
Iron	mg/L	0.3	6.2	2.2
Lead	mg/L	0.005	Below MDL	Below MDL
Manganese	mg/L	0.01	0.82	0.77
Molybdenum	mg/L	0.003	0.006	0.004
Nickel	mg/L	0.03	Below MDL	Below MDL
Selenium	mg/L	0.003	Below MDL	Below MDL
Silver	mg/L	0.001	Below MDL	Below MDL
Zinc	mg/L	0.01	0.08	0.01



## Kenneco. Environmental Laborat y

Certificate of Analysis -- August 2, 1995

Well Designation: BMS1356

Collection Date: 07/05/95 Submission Date: 07/06/95

Total Metals

Page: 1 Dissolved Metals

KEL Sample ID Numbers: AD06987

AD06988

Analyte	Units	MDL	Result	Result
* Conductivity	Micro mho/cm	1	1250	
* Depth To Water	Feet	0.01	Not Analysed	
* Eh	Millivolts	1	74	
⁺pH			7.29	
Temperature	Degrees C	•	16.0	
Dissolved Oxygen	mg/L	1.0	1.0	
Ferrous fron	mg/L	0.1	5.0	
' Sulfide	mg/l	0.1	Below MDL	
Alkalinity	mg/L	10	237	
Total Dissolved Solids	mg/L	10	930	
Total Suspended Solids	mg/L	1.0	9.0	
Calcium	mg/L	0.1	190	
Chloride	mg/L	5	19	
fluoride	mg/L	0.2	0.5	
Potassium	mg/L	0.5	3.4	
Magnesium	mg/L	0.1	64	
Sodium	mg/L	1.0	13	
Nitrite Nitrogen	mg/L	0.05	Below MDL	
litrate Nitrogen	mg/L	0.20	Below MDL	
Sulfate	mg/L	50	464	
Silver	mg/L	0.001	Below MDL	Below MDL
rsenic	mg/L	0.005	0.011	0.005
Barium	mg/L	0.01	0.03	0.03
Cadmium	mg/L	0.002	Below MDL	Below MDL
Chromium	mg/L	0.010	Below MDL	Below MDL
Copper	mg/L	0.02	Below MDL	Below MDL
ron	mg/L	0.30	6.30	5.00
fanganese	mg/L	0.01	0.99	0.88
lolybdenum	mg/L	0.003	0.008	0.005
lickel	mg/L	0.03	Below MDL	Below MDL
ead	mg/L	0.005	Below MDL	Below MDL
Selenium	mg/L	0.003	Below MDL	Below MDL
Zinc .	mg/L	0.010	0.020	0.020

Approved By: Lynn A. Hutchinson KEL Laboratory Director

\* = Included for information purposes only, not performed by KEL.





### Kennecoll Environmental Laborally

Certificate of Analysis -- October 30, 1995

Well Designation: BMS1356 Collection Date: 09/06/95

Submission Date: 09/06/95

Total Metals

Page: Dissolved Metals AD10409

KEL Sample ID Numbers: AD10408

Analyte	Units	MDL	Result	Result
* Conductivity	Micro mho/cm	1	1200	
Depth To Water	Feet	0.01	317.48	
* Eh	Millivolts	1	91	
* pH			7.01	
* Temperature	Degrees C		15.5	
* Carbonate	mg/L	1.0	Below MDL	
Dissolved Oxygen	mg/L	1.0	1.0	
* Ferrous Iron	mg/L	0.1	5.0	
* Bicarbonate	mg/L	1	240	
* Sulfide	mg/l	0.1	Below MDL	
Alkalinity	mg/L	10	240	
Total Dissolved Solids	mg/L	10	933	
Total Suspended Solids	mg/L	1 0	12.0	
Calcium	mg/L	0.1	187	
Chloride	mg/L	5	17	
Fluoride	mg/L	0.2	0.5	
Potassium	mg/L	0.5	3.6	
Magnesium	mg/L	0.1	73	
Sodium	mg/L	1.0	15	
Nitrite Nitrogen	mg/L	0.05	Below MDL	
Nitrate Nitrogen	mg/L	0.20	Below MDL	
Sulfate	mg/L	5	437	
Silver	mg/L	0.001	Below MDL	Below MDL
Arsenic	mg/L	0.005	0.006	Below MDL
Barium	mg/L	0.01	0.03	0.03
Cadmium	mg/L	0.002	Below MDL	Below MDL
Chromium	mg/L	0.010	Below MDL	Below MDL
Copper	mg/L	0.02	Below MDL	Below MDL
iron	mg/L	0.30	6.00	5.00
Manganese	mg/L	0.01	0.90	0.90
Molybdenum	mg/L	0.003	Below MDL	Below MDL
Nickel	mg/L	0.03	Below MDL	Below MDL
Lead	mg/L	0.005	Below MDL	Below MDL
Selenium	mg/L	0.003	Below MDL	Below MDL
Zinc	mg/L	0.010	0.030	0.020

<sup>\* =</sup> Included for information purposes only, not performed by KEL.





# Kennecot. Invironmental Laborate.

REVISED Certificate of Analysis -- December 1, 1995

Well Designation: BMS1356

Collection Date: 11/09/95 Submission Date: 11/10/95

Total Metals

Page: Dissolved

KEL Sample ID Numbers: AD13039

Metals AD13040

Analyte	Units	MDL	Reşult	Result
* Conductivity	Micro mho/cm	1	1194	
* Depth To Water	Feet	0.01	332.04	
*Eh	Millivolts	1	Not Analysed	
*pH			7.25	
* Temperature	Degrees C		15.0	
Dissolved Oxygen	mg/L	1.0	Not Analysed	
* Ferrous Iron	mg/L	0.1	Not Analysed	
* Sulfide	mg/l	0.1	Not Analysed	
Alkalinity	mg/L	10	239	
Total Dissolved Solids	mg/L	20	920	
Total Suspended Solids	mg/L	3.0	11.2	
Calcium	mg/L	0.1	190	
Chloride	mg/L	5	17	
Fluoride	mg/L	0.2	0.5	
Mercury	mg/L	0.0002	0.0002	
Potassium	mg/L	0.5	3.6	
Magnesium	mg/L	0.1	61	
Sodium	mg/L	1.0	12	
Nitrite Nitrogen	mg/L	0.05	Below MDL	
Nitrate Nitrogen	mg/L	0.20	Below MDL	
Sulfate	mg/L	50	463	
Silver	mg/L	0.001	Below MDL	Below MDL
Muminum	mg/L	0.005	Below MDL	Below MDL
Arsenic	mg/L	0.005	0.012	Below MDL
Boron	mg/L	0.01	Below MDL	Below MDL
Barium	mg/L	0.01	0.04	0.03
eryllium eryllium	mg/L	0.002	Below MDL	Below MDL
admium	mg/L	0.002 .	Below MDL	Below MDL
chromium	mg/L	0.010	Below MDL	Below MDL
Copper	mg/L	0.02	Below MDL	Below MDL
on	mg/L	0.30	9.80	. 3.00
langanese	mg/L	0.01	Below MDL	Below MDL
lolybdenum	mg/L	0.003	Below MDL	Below MDL
lickel	mg/L	0.03	0.05	Below MDL
ead	mg/L	0.005	Below MDL	Below MDL
ntimony	mg/L	0.005	Below MDL	Below MDL
elenium	mg/L	0.003	Below MDL	Below MDL
ïtanium	mg/L	0.010	0.520	0.520
hallium	mg/L	0.002	Below MDL	Below MDL
linc	mg/L	0.010	0.050	0.050

Approved By: Lynn A. Hu KEL Laboratory Director Lynn A. Hutchinson

<sup>\* =</sup> Included for information purposes only, not performed by KEL.

Kennecott Utah Copper Corporation 8315 West 3595 South P.O. Box 6001 Magna, Utah 84044-6001 (801) 252-3179 (801) 252-3125 (FAX)

Elaine J. Dorward-King, Ph.D.

Director, Environmental Affairs

Kennecott

JAN . 1 1996

January 29, 1996

Mr. Wayne Hedberg, Permit Supervisor Minerals Reclamation Program Division of Oil, Gas, and Mining 355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203

Dear Mr. Hedberg:

Subject:

Annual Reports for 1995, Kennecott Utah Copper

Enclosed please find the annual report forms completed for the following mine permits:

M/035/002 Bingham Pit & UCD Modernization

M/035/011 4th Line/Copperton Concentrator

**M**/045/004 Pine Canyon

Saltair (A permit was applied for in 1992 for the former M/035/005 Morton Salt Facility. No permit was issued by DOGM for this file number. The M/035/005 permit application has been superseded by Kennecott Utah Copper Corporation's application for the North Impoundment tailings storage area. See DOGM file number M/035/015.)

North Perimeter Impoundment (As of the date of this M/035/015 writing, Mine Permit M/035/015 is pending final issuance by DOGM. Nevertheless, Kennecott is submitting a 1995 annual report under this file number with no activity to report.)

Kennecott requests that the permit application for M/035/005 Saltair be withdrawn at this time. Any future reference to the Former Morton Salt Facility should reflect Mine Permit number M/035/015 North Impoundment which envelopes the former Morton Salt Property.

Mr. Wayne Hedberg January 29, 1996 Page 2

In addition to the reclamation documented in the attached reports, the following reclamation was conducted outside of the permit boundary KUC property:

- Smelter and surroundings 204 acres hydro-seeded, 39 acres broadcast seeded
- Garfield and surroundings 43 acres hydro-seeded, 41 drill seeded
- Utah Power Plant 21 acres hydro-seeded
- Administrative area 19 acres hydro-seeded
- HWY 201 landscape 20 acres hydro-seeded
- Refinery landscaping landscaping, sprinkling system, and lawn installed

Should you have any questions on these annual reports, please phone me at 252-3179.

Sincerely,

Elaine J. Dorward-King, Ph.D.

3Pm J. Doward-Kmg

Director, Environmental Affairs

EJK\PD:bt

**Enclosures** 

File. 12.220.800 (Annual)